

APPENDIX B

Docket No.: 360842009711
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Daisuke YAHATA et al.

Application No.: 10/815,772

Confirmation No.: 9959

Filed: April 2, 2004

Art Unit: 1791

For: ALIPHATIC POLYESTER MULTI-FILAMENT
CRIMP YARN FOR A CARPET, AND
PRODUCTION METHOD THEREOF

Examiner: L. B. Tentoni

DECLARATION UNDER 37 CFR 1.131

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

We, Daisuke Yahata, Kazuya Matsumura, Shinnichi Nishihata, Motokatsu Nishimura, Tatsuro Mizuki, Masakatsu Umeda, Takehiko Miyoshi and Kenzo Kubo, declare under penalty of perjury under the laws of the United States of America as follows:

1. We are the joint inventors who filed this application. We are each familiar with the contents of this application.

2. We are aware that, in the Office Action dated October 28, 2008, the Examiner has rejected the pending claims of this application in view of Japanese Patent Publication No. 2002-105752 (hereinafter "the Okawa reference"). We are also aware that the Okawa reference published on April 10, 2002, which is the critical date for the Okawa reference. This declaration is submitted to show that we were in possession of the subject matter of the pending claims before April 10, 2002.

3. Before April 10, 2002, the critical date of the Okawa reference, we invented a method of producing an aliphatic polyester multifilament crimped yarn that exhibits a melting point equal to or higher than 130°C, a crimp elongation rate of 3-35% after being processed with boiling water, and a breaking strength of 1-5 cN/decitex. This method involves drawing a non-drawn yarn including a biodegradable polymer containing aliphatic polyester as a main component via two-step drawing processes. The first drawing step involves drawing the non-drawn yarn in a range of 1.01-3 times its original length. The second drawing step involves further drawing the drawn yarn in a range of 1.01-3 times its length, resulting in a total drawing scale of 1.02-9 times the original length. The drawn multifilament fiber is crimped using a crimp-providing apparatus that utilizes heated air at a temperature in a range of 120-170°C to produce a multifilament crimped yarn. A multifilament crimped yarn produced by this method exhibits excellent qualities as a yarn used in making a biodegradable carpet pile.

4. Before the critical date of the Okawa reference, we produced a yarn according to the method described above and performed various tests on the yarn to measure its physical characteristics. The physical characteristics of the yarn are disclosed in a redacted copy of Test Request Cards/Test Result Reports and a redacted copy of Half Monthly Reports by the Industrial Interior Engineering Section/Interior Engineering Section of Toray Industries (hereinafter "the test reports") submitted herewith. All of these test reports were prepared and dated prior to April 10, 2002. The submitted test reports have been redacted to remove portions not relevant to the claimed invention. In addition, an English translation of the relevant portions is provided with the test reports.

5. The test reports submitted herewith show that a crimp yarn we obtained in accordance with the method described above exhibits a crimp elongation rate after being processed with boiling water in a range of 3-35% as claimed. For example, the tables on pages 2-4 of the test reports indicate that the crimp elongation rates of the samples that were tested ranged from 5.0 to 9.0 %. In the tables found on pages 8 and 9 of the test reports, the crimp elongation rates of the tested samples ranged from 7.0-11.3%. In addition, the test reports indicate that Toray has specifically evaluated some samples of the yarn for use in a carpet pile of a Toyota product before

the critical date of the Okawa reference. Thus, before April 10, 2002, we were in possession of a method for producing an aliphatic polyester multifilament crimped yarn as described above, the method involving providing a crimp to drawn multifilament fiber including a biodegradable polymer containing an aliphatic polyester as a main component by using a crimp-providing apparatus that utilizes heated air at 120-170°C to produce a multifilament crimped yarn, in which the aliphatic polyester multifilament crimped yarn comprises a polylactic acid aliphatic polyester having a melting point equal to or higher than 130°C, the multifilament crimped yarn has a crimp elongation rate of 3-35% after being processed with boiling water, and the multifilament crimped yarn has a breaking strength of 1-5 cN/decitex, and in which the yarn is produced by drawing a non-drawn yarn via two-step drawing processes, the two-step drawing processes involving drawing a yarn to 1.01-3 times its length at the first step and to 1.01-3 times its length at the second step, with a drawing scale of 1.02-9 times in total.

6. The undersigned declarants declare that all statements made herein are true and that all statements made on information and belief are believed to be true. Further, these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

We declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Date: Mar. 30, 2009Daisuke Yahata

Daisuke YAHATA, first inventor

Date: Mar. 30, 2009Kazuya Matsumura

Kazuya MATSUMURA, second inventor

Date: Mar. 31, 2009Shinnichi Nishihata

Shinnichi NISHIHATA, third inventor

Date: Mar. 31, 2009Motokatsu Nishimura

Motokatsu NISHIMURA, fourth inventor

Date: Mar. 31, 2009Tatsuro Mizuki

Tatsuro MIZUKI, fifth inventor

Date: Apr. 14, 2009Masakatsu Umeda

Masakatsu UMEDA, sixth inventor

Date: Apr. 10, 2009Takehiko Miyoshi

Takehiko MIYOSHI, seventh inventor

Date: Mar. 30, 2009Kenzo KUBO

Kenzo KUBO, eighth inventor